SUMMARY OF 1982 PETROLEUM EXPLORATION

AND DEVELOPMENT ACTIVITY IN MANITOBA

PETROLEUM BRANCH

MANITOBA DEPARTMENT OF ENERGY AND MINES

March 1983

Summary of 1982 Highlights

- 195 wells were drilled in Manitoba during 1982 surpassing all drilling activity for the past 25 years.

- Despite two periods of shut-in oil production, Manitoba's annual oil production increased for the first time since 1968 to 582 221 m^3 (3.66 million barrels).

- The value of oil exceeded $100 million, a 57% increase over 1981 values due mainly to higher oil prices and increased production.

- Provincial revenues collected from the oil industry (royalties, oil taxes, and lease sales) increased to $16.25 million during 1982 representing a 13% increase over 1981.

- Gross royalties payable to freehold mineral owners were estimated to be $11 million in 1982 (federal and provincial tax liabilities not excluded).

- Municipal tax assessments on oilfield equipment will provide southwestern Manitoba with over $5 million in tax revenue.

- Revenue to surface owners estimated at $1.3 million.

- Oil industry expenditures in Manitoba are estimated at $120 million in 1982, representing a 117% increase over 1981 expenditures.

- 19 Geophysical licenses were issued in 1982, setting a new record for the number of geophysical programs licensed in a single year.

- Two sales of Crown oil leases covering 6 448 hectares generated $1,074,588 in revenue to the Province.

- Estimates of remaining established crude oil reserves increased to 8.2 million m^3 (52 million barrels) in 1982, mainly because of extensive drilling and development in the Waskada area.

- A new set of Geophysical Regulations (Manitoba Regulation 202/82) were introduced in October, 1982 outlining rules and procedures to be followed when applying for geophysical licenses and conducting geophysical programs in Manitoba.

- Manitoba Drilling Incentive Program is extended to January 1, 1987, resulting in continued reductions in royalties and taxes payable by producers for new oil wells operating during their incentive period.

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Crown Oil and Natural Gas Lease Sales

Two Crown oil and natural gas lease sales were held in 1982. Fifty-six leases covering 6 448 hectares were sold totaling $1,074,588.

In the first lease sale, held in May, 1982, the average bonus price paid per hectare was $132.16. This figure was surpassed by 47% in the October sale when the average bonus price increased to $194.51 per hectare.

Both sales also surpassed earlier records for the highest price paid per hectare. In the May sale, Omega Hydrocarbons Limited set a new record paying $835.94 per hectare. This record was broken at the October sale when a group of companies paid $938.88 per hectare.

No exploration reservations were sold in 1982.

Since Crown oil and gas lease sales resumed in 1979, the province has received $5,716,368 in revenue from the disposition of Crown oil leases and exploration reservations. (refer to Table for individual sale statistics).

Crown Oil and Natural Gas Leases

The total area of Crown oil and natural rights under disposition as of December 31, 1982 was 66 700 hectares. Of this total, 45 750 hectares were held under lease and 20 950 hectares under exploration reservations.

On December 31, 1982, deeper rights renewal provisions came into effect for pre 1979 leases. Under these provisions, non-productive areas and rights below the producing formation revert to the Crown at the end of the lease term. These regulatory termination provisions resulted in 2 500 hectares being terminated. Such cancelled rights again become available to be leased by other parties interested in

MANITOBA OIL LEASE SALE STATISTICS

	LEASES						EXPLORATION		RESERVATIONS			
Sale Date	Number of Leases Sold	Area (ha)	Bonus ($)	Avg. Price($/ha)	Highest Price ($/ha)	Lease Revenue($)	No. of Expl. Res. Sold	Area (ha)	Bonus ($)	Avg. Price ($/ha)	Highest Price/($/ha)	Reservation Revenue ($)	Total Value($)
April 19, 1979	42	6 200	493,641.30	$79.62	277.50	511,241.30	3	4 736	40,888.00	8.63	12.23	47,588.00	558,829.30
Sept. 6, 1979	44	4 864	404,243.60	83.11	315.17	419,103.60	-	-	-	-	-	-	419,103.60
March 5, 1980	38	6 204	426,553.50	68.75	267.34	443,963.50	6	19 408	746,463.20	56.53	100.31	764,468.20	1,208,431.70
July 23, 1980	18	2 432	224,698.82	92.39	139.75	231,678.82	2	2 368	73,882.00	31.20	31.20	77,342.00	309,020.82
Oct. 29, 1980	24	3 904	406,277.52	104.06	470.51	417,237.52	-	-	-	-	-	-	417,237.52
May 13,1981	38	6 269	589,615.58	94.05	257.26	607,188.08	1	1 280	207,718.40	162.28	162.28	209,568.40	816,756.48
October 28, 1981	47	6 043	485,342.76	80.31	252.50	502,800.26	4	4 096	403,480.32	98.51	178.43	409,600.32	912,400.58
May 21, 1982	30	3 184	420,788.43	132.16	835.94	430,248.43	-	-	-	-	-	-	430,248.43
Oct. 27, 1982	26	3 264	634,879.52	194.51	938.88	644,339.52	-	-	-	-	-	-	644,339.52
Total	307	36 164	4,086,041.00	95.58	938.88	4,207,801.03	16	31 888	1,472,431.90	71.43	178.43	1,508,566.92	5,716,367.95

actively developing them. A lease may be extended for further periods of one year if a rental penalty is paid and a commitment to a drilling program is made.

Freehold Leasing

Approximately 80% of the mineral rights in southwestern Manitoba are privately (freehold) owned. Between 1976-1978 some extensive freehold leasing programs were carried out by the oil industry. Many of the leases entered into were for a term of five years. The pending expiry of these leases has added to the increased drilling activity. If production is obtained on a lease the term of the lease is automatically extended. There is keen competition between companies to negotiate new leases with freehold mineral owners in areas of current interest where leases have expired or are not leased. Freehold mineral owners receive revenue from signing bonuses, delay rental payments and oil royalties when production is obtained. Average freehold royalties equate to 12½-15% of gross production sales value. It is estimated that gross royalties payable to freehold mineral owners in 1982 amounted to $11 million prior to the payment of provincial and federal taxes.

Geophysical Activity

Nineteen geophysical licenses covering approximately 1 000 km were issued in 1982. This was the largest number of licenses ever issued in Manitoba. The estimated cost of these programs was $2.5 million representing a 18% increase over actual 1981 program costs.

Geophysical activity levels generally provide an indication of expected drilling activity. If this holds true, it may be expected that the number of wells drilled in 1983 will be similar to the number of wells drilled in 1982.

MANITOBA GEOPHYSICAL ACTIVITY SUMMARY

(PETROLEUM) 1973-1982

Year	# of Geophysical Licenses Issued	# of Kilometres Run (km)	Total Program Costs $
1973	0	0	0
1974	0	0	0
1975	1	270	106,500
1976	3	112	118,302
1977	2	830	1,046,220
1978	5	1,828	3,451,370
1979	10	5,308	6,818,990
1980	10	851	1,843,438
1981	11	1,142	2,116,854
1982	19	1,000*	2,500,000*

* Estimate

Geophysical programs were carried out in the following areas of the province in 1982: Deloraine, Daly, Dalny, Tilston, Goodlands, Whitewater, Waskada, Coulter, Hargrave, Butler, Oak Lake, Melita, Kirkella, Reston, Pierson and North Virden.

A new set of Geophysical Regulations (Manitoba Regulation 202/82) were introduced in October 1982 under The Mines Act. These new regulations outline the rules and procedures to be followed when applying for geophysical licenses and conducting geophysical programs in Manitoba for the exploration of petroleum and natural gas.

Drilling Activity

In 1982, 19 different oil companies had wells drilled in Manitoba's oil patch. Eight drilling contractors with 16 drilling rigs drilled 195 wells, totalling 184 291 metres during the year. Drilling activity in 1982 surpassed 1981 levels by over 190%. Of the total number of wells completed, 117 were classified as development wells, while the remaining 78 were exploratory.

The success rate of wells drilled was also very high. One hundred and sixty-four of the 195 wells were completed as potential oil wells, representing an 84% success rate.

Three of the 19 companies working in Manitoba drilled 74% of all wells. Omega Hydrocarbons Limited drilled 94 wells (48%), Roxy Petroleum Ltd. drilled 33 wells (17%), and New Scope Resources Limited drilled 17 wells (9%). The majority of these wells were classified as development wells.

Most of the drilling activity in the province took place in the Waskada area. One hundred and fifty-one wells, or 77%

of all wells drilled in 1982 were located in the Waskada area. Approximately 92% of these wells were completed as potential oil wells.

Although most of the drilling activity took place in the Waskada area, drilling activity also increased in the Coulter, Pierson and north Virden areas in the last quarter of the year.

This increased exploration activity around Coulter and Pierson may lead to the further development of the Lower Amaranth "red-beds" Formation (also known as the Spearfish formation) in this area. Drilling activity in the north Virden area resulted in the further development of the Virden Field.

The recent drilling and exploration activity outside of Waskada indicates that interest from the successful Waskada oil play is spreading to other areas of the province.

PETROLEUM INDUSTRY STATISTICS - DRILLING ACTIVITY IN MANITOBA

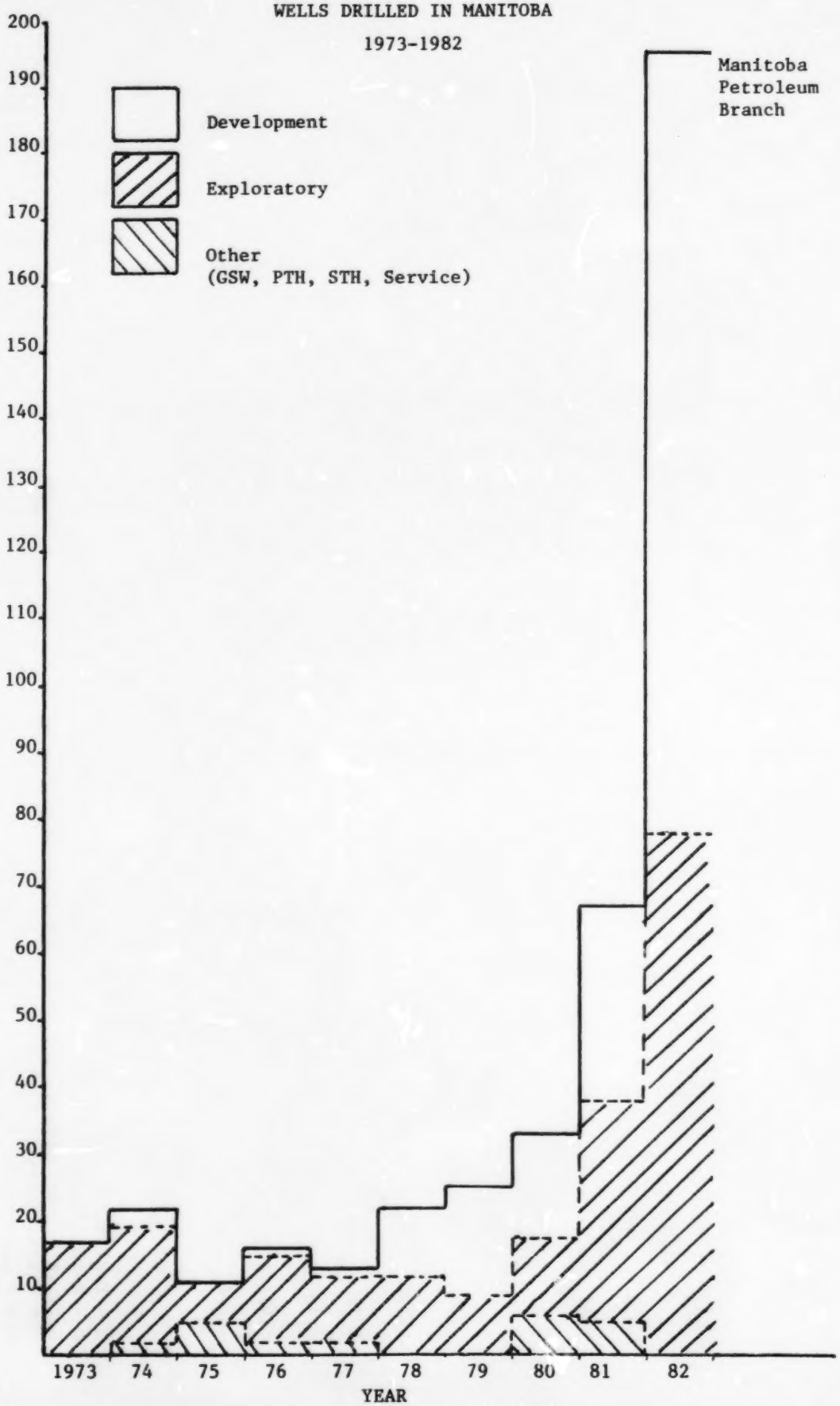
1973-1982

Year	# of Well Licenses Issued	Total # of Wells Drilled	Oil & Gas Wells Drilled				Other Wells Drilled				Total Metreage Drilled
			Licensed Classification		Status						
			E	D	Potential Oil	Abandoned Dry	Service	STH	PTH	GSW	
1973	19	17	17	0	0	17	0	0	0	0	14 083
1974	22	22	17	3	6	15	1	1	0	0	23 784
1975	9	11	6	0	2	4	1	4	0	0	8 805
1976	16	16	13	1	3	11	0	0	0	2	13 515
1977	20	13	10	1	9	2	0	2	0	0	11 584
1978	15	22	12	10	10	6	6	0	0	0	18 329
1979	27	25	9	16	16	9	0	0	0	0	20 537
1980	33	33	12	15	18	9	0	0	6	0	29 076
1981	76	67	33	29	47	15	0	0	5	0	66 045
1982	201	195	78	117	164	30	0	0	0	0	184 291

E - Exploratory
D - Development
Service - water supply, disposal, and injection wells
STH - Stratigraphic Test Hole
GSW - Gas Storage Well
PTH - Potash Test Hole

WELLS DRILLED IN MANITOBA

1973-1982



Production

Despite two periods of artificial production cutbacks which occurred during the year, annual oil production in Manitoba was 582 221 m^3 (3.66 million barrels) in 1982, representing a 7% increase over 1981. This is the first time in 14 years that annual oil production actually increased.

Oil production had been declining at approximately 3.5% per year since 1969. The increased oil output can be attributed mainly to the successful development of the Waskada area.

Oil production from the Waskada area increased from 12 934 m^3 (81,394 barrels) in 1981 to 85 666 m^3 (539,096 barrels) in 1982, an increase of 562%. The average daily production from this area currently is approximately 590 m^3/day (3,710 barrels).

Most of the oil produced from the Waskada area is classified as "New Oil". In 1982, 105 306 m^3 of oil produced in the province was classified as New Oil and of this total, approximately 80% was produced from Waskada.

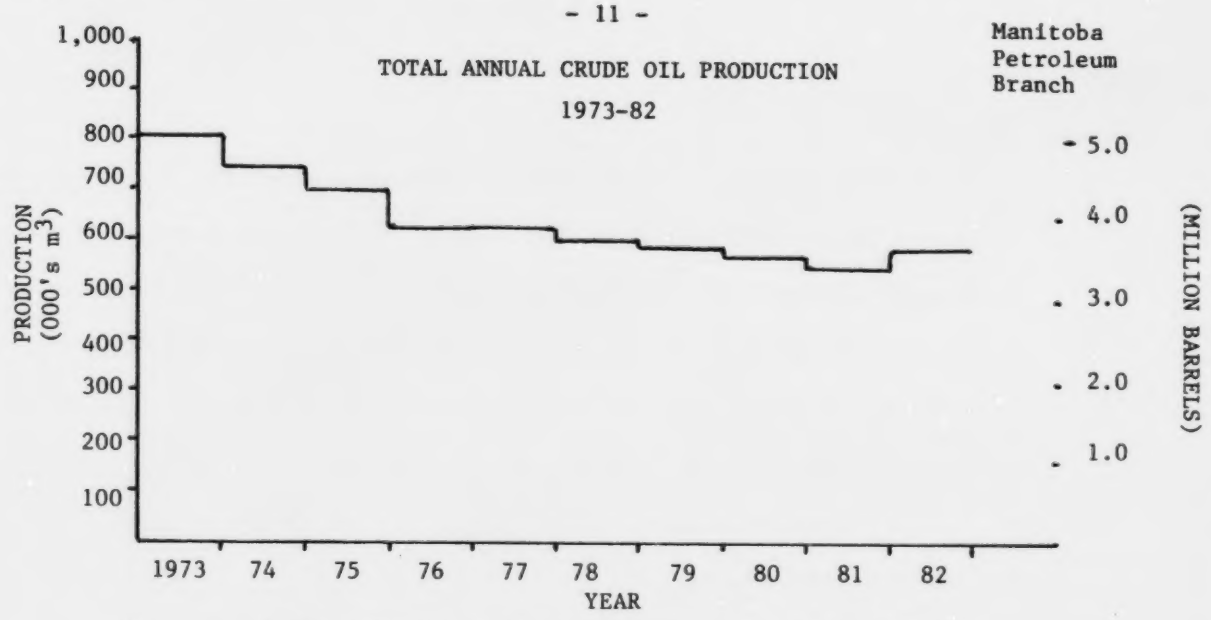
The remaining 476 915 m^3 of production was considered to be "Old Oil", of which less than 1% was produced from the Waskada area.

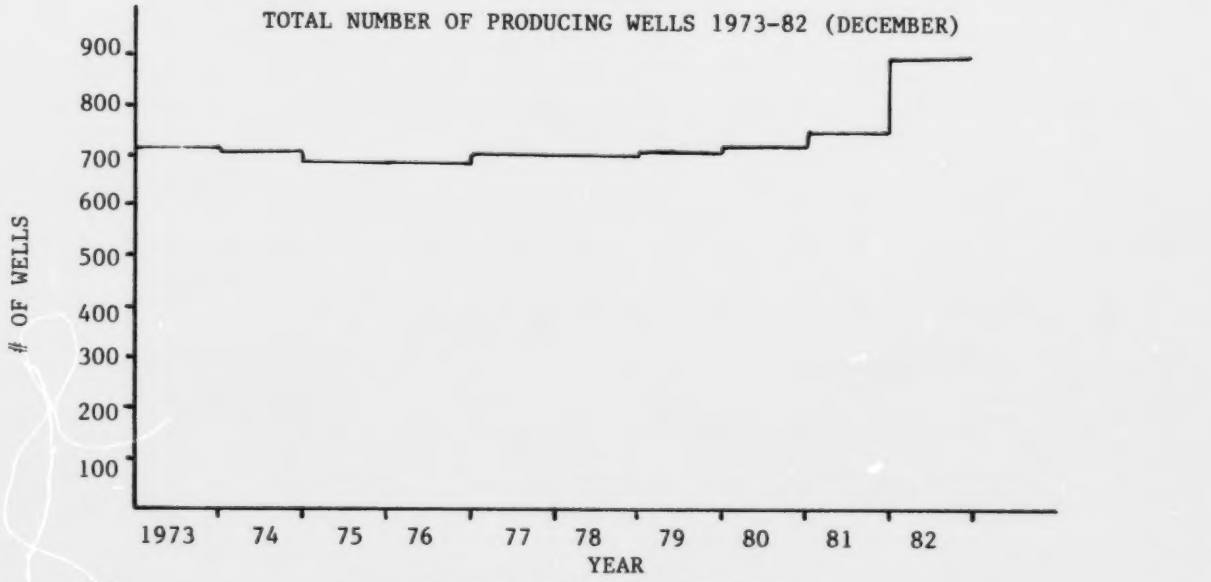
If drilling activity continues at the same pace and with the continued success rate as in 1982, crude oil production during 1983 is expected to reach 715 000 m^3 (a 23% increase over 1982) barring any unforeseen artificial production cutbacks.

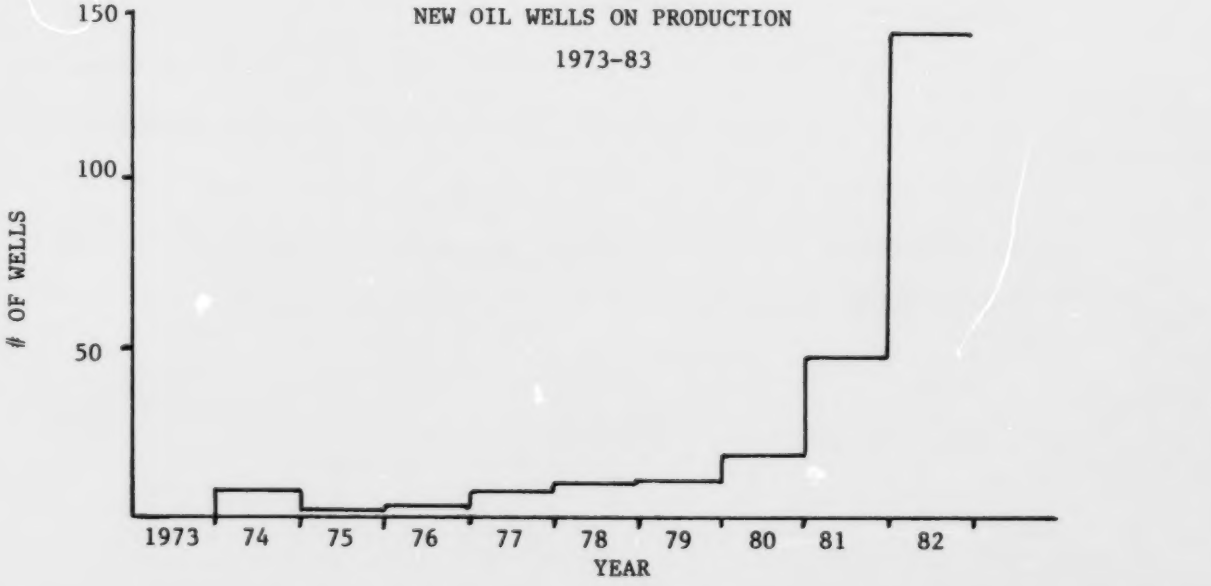
MANITOBA PETROLEUM PRODUCTION STATISTICS

1973-1982

Year	Wells Capable of Production (December)	Wells Producing (December)	Crude Oil Production (m^3)	Total Fluid Production (m^3)	% Water Cut	Avg. Oil Production Per Day (m^3)
1973	882	719	807 882	4 793 459	83	2 213
1974	871	714	754 667	4 749 206	84	2 068
1975	831	686	701 459	4 678 681	85	1 922
1976	821	688	633 322	4 655 254	86	1 730
1977	804	701	630 466	4 858 549	87	1 729
1978	808	703	598 354	4 673 532	87	1 639
1979	811	705	583 377	4 529 714	87	1 598
1980	823	720	563 482	4 734 533	88	1 540
1981	853	748	542 695	5 107 905	89	1 487
1982	1002	896	582 221	5 164 007	89	1 595


TOTAL ANNUAL CRUDE OIL PRODUCTION
1973-82
Manitoba
Petroleum
Branch
PRODUCTION
(000's m3)
(MILLION BARRELS)
1,000
900
800
700
600
500
400
300
200
100
5.0
4.0
3.0
2.0
1.0
1973
74
75
76
77
78
79
80
81
82
YEAR


TOTAL NUMBER OF PRODUCING WELLS 1973-82 (DECEMBER)
OF WELLS
900
800
700
600
500
400
300
200
100
1973
74
75
76
77
78
79
80
81
82
YEAR


NEW OIL WELLS ON PRODUCTION
1973-83
OF WELLS
150
100
50
1973
74
75
76
77
78
79
80
81
82
YEAR

Oil Prices

The average value in 1982 for New Oil, under the New Oil Reference Price (NORP) program, was $\$264/m^3$ ($42.00 per barrel). "Old Oil", eligible for the Special Old Oil Price (SOOP) supplement was valued at $\$192/m^3$ ($30.50 per barrel) and "old oil" sold for $\$160/m^3$ ($25.50 per barrel). The average wellhead value for all oil in Manitoba during 1982 was $\$174/m^3$ ($27.70 per barrel).

Effective January 1, 1983 the value of the three classifications of oil in Manitoba were:

N.O.R.P. Oil (D2S3 quality): $\$274.03/m^3$ ($43.55 per barrel)

S.O.O.P. Oil (D3S4 quality): $\$191.95/m^3$ ($30.50 per barrel)

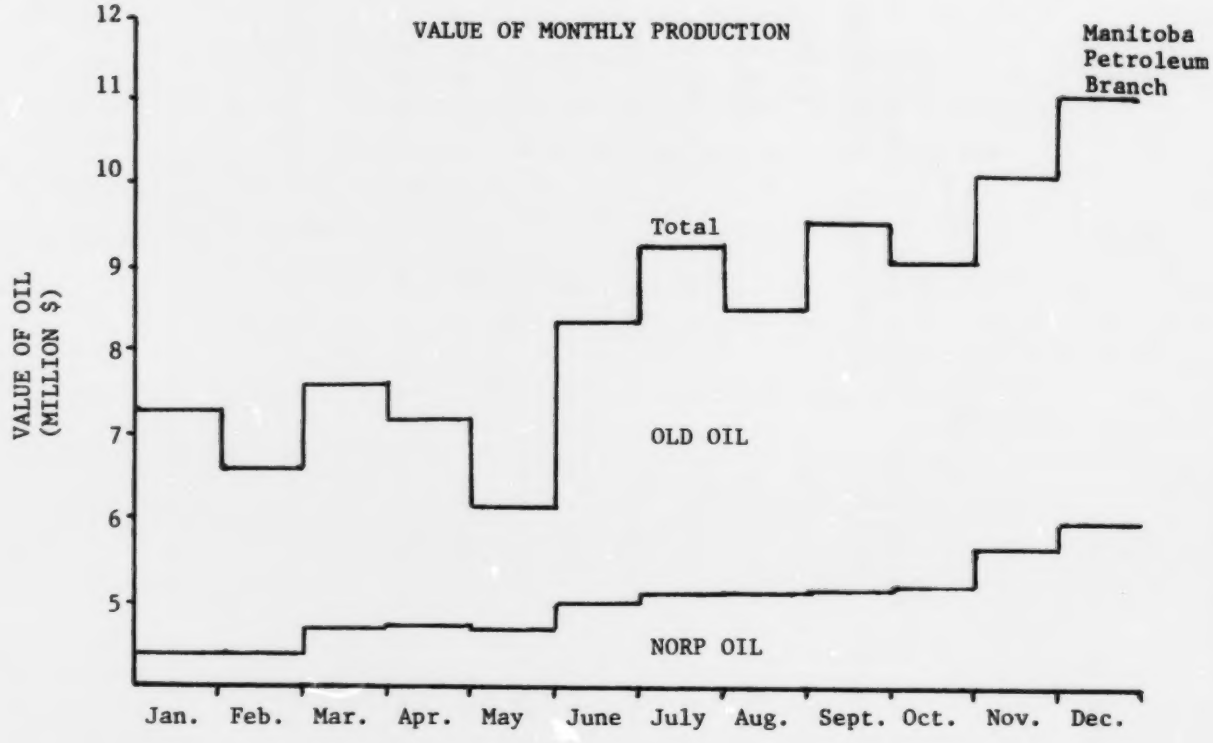
Old Oil (D3S4 quality): $\$184.65/m^3$ ($29.35 per barrel)

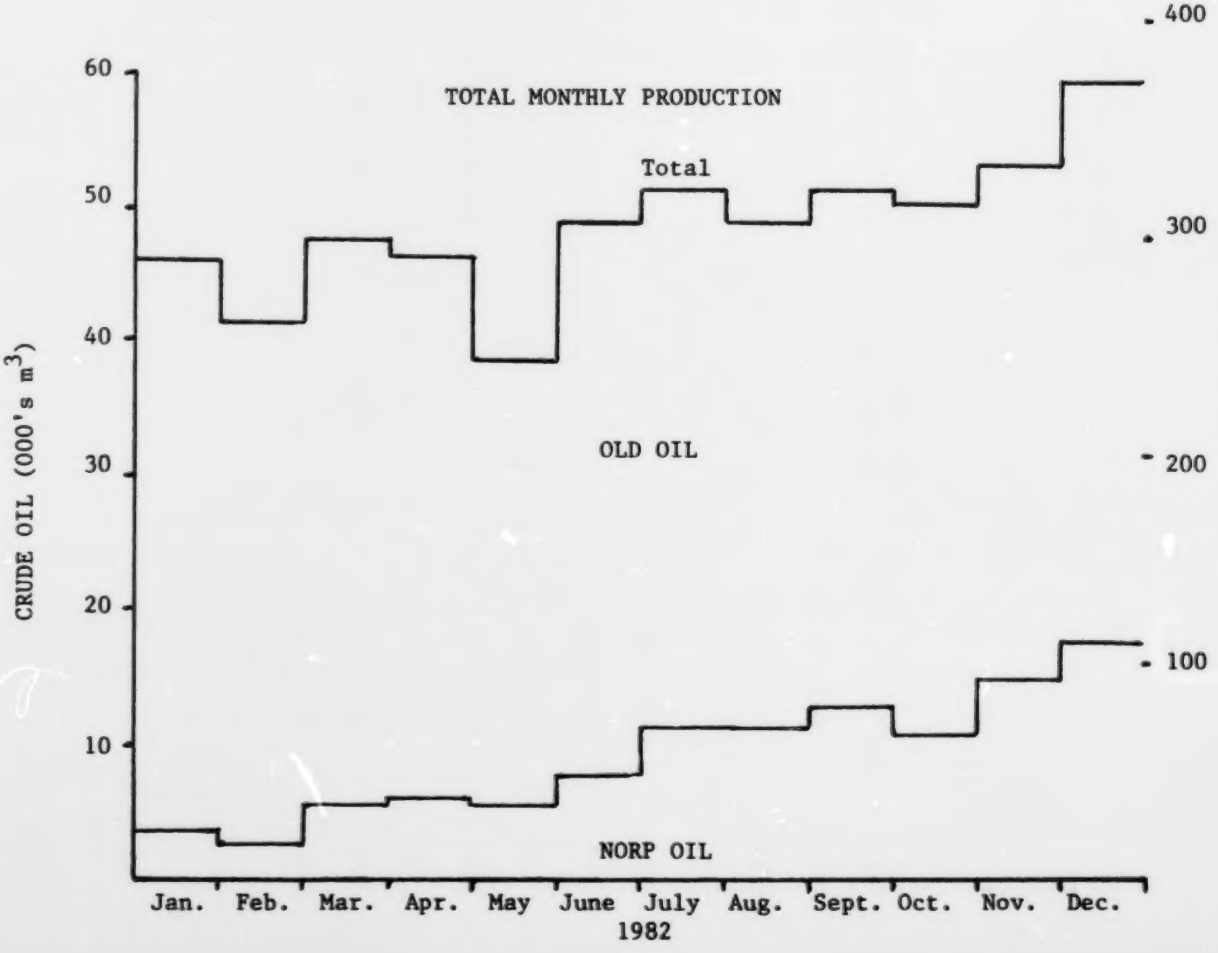
Value of Production

In 1982 the total value of oil produced was over $100 million dollars compared to $64 million in 1981 (a 57% increase). Two factors were responsible for this increase: increased price and increased production.

Provincial Royalty and Tax Revenue

Higher production levels and higher wellhead prices resulted in the Provincial government collecting approximately $3.2 million in Crown oil royalties, $12 million in freehold oil taxes, $1.3 million in Crown lease sale bonuses, rentals and fees, and $1.2 million in the province's share of crude oil export taxes. These figures do not include provincial revenues in the form of corporate capital taxes, sales taxes, and corporate and individual income taxes.


VALUE OF MONTHLY PRODUCTION
Manitoba Petroleum Branch
VALUE OF OIL (MILLION $)
12
11
10
9
8
7
6
5
Total
OLD OIL
NORP OIL
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.


TOTAL MONTHLY PRODUCTION
CRUDE OIL (000's m3)
60
50
40
30
20
10
400
300
200
100
BARRELS (000's)
Total
OLD OIL
NORP OIL
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.
1982

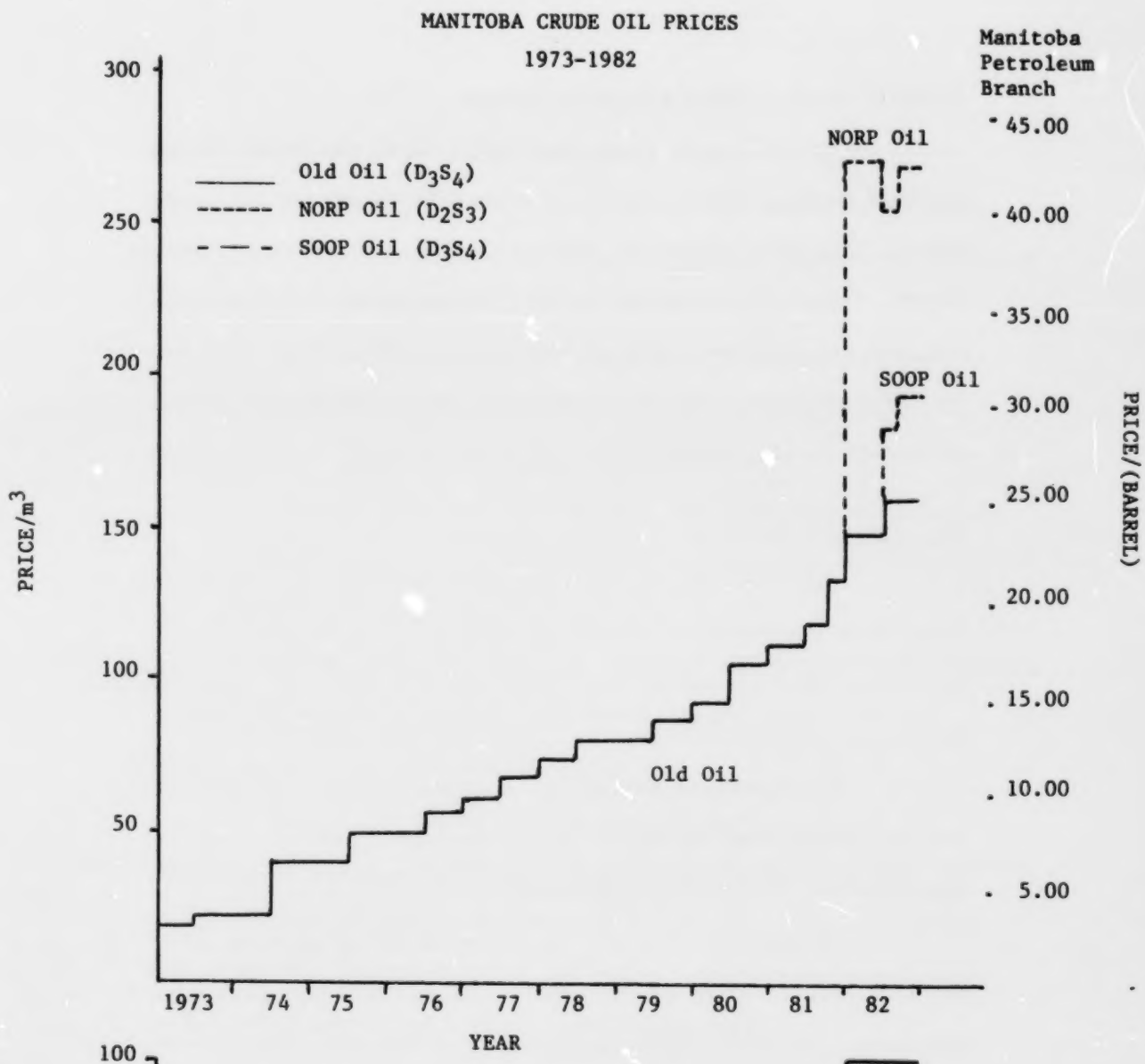
MANITOBA CRUDE OIL REVENUES

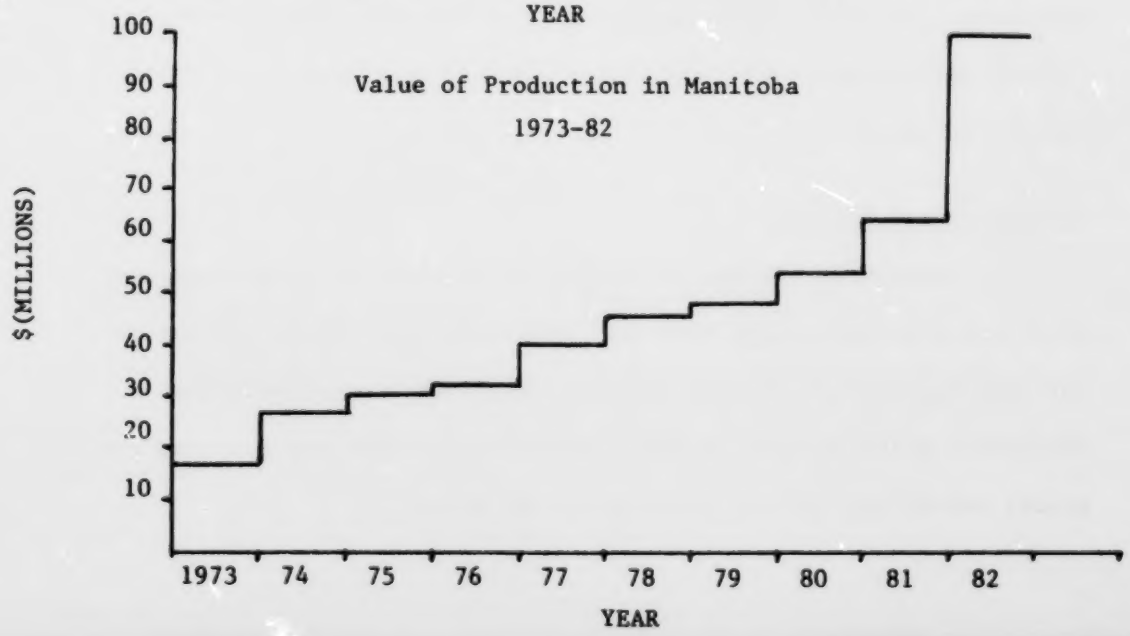
1973-1982

Year	Total Production (m^3)	Avg. Wellhead Price ($/$m^3$)	Total Value of Prod. ($)	Crown Oil Royalties ($)	Freehold Oil Tax ($)	Crown Land Sales (Lease/Res.$)	Total Revenue To Province*
1973	807,882	21.21	17,155,080	403,729	143,572	N/A	547,301
1974	754,667	35.99	27,181,792	1,598,907	5,216,314	N/A	6,815,221
1975	701,459	44.86	31,452,592	1,823,361	6,498,072	N/A	8,321,433
1976	633,322	52.79	33,532,609	2,023,828	6,128,261	N/A	8,152,089
1977	630,466	64.12	40,457,038	2,263,015	7,012,188	N/A	9,275,203
1978	598,354	76.77	45,953,383	2,281,355	8,017,968	N/A	10,299,323
1979	583,377	82.96	48,403,312	2,280,162	8,768,511	977,413	12,026,086
1980	563,482	97.52	54,948,288	2,574,515	9,159,426	1,934,690	13,668,631
1981	542,695	118.39	64,054,832	2,714,733	10,005,107	1,729,157	14,448,997
1982	582,221	174.	100,539,689	3,175,625	(12,000,000)**	1,074,588	(16,250,213)**

* Does not include rentals, fees, sales taxes, municipal taxes, corporation capital taxes, corporate and individual income taxes, and other related spin-offs.

** Est.


MANITOBA CRUDE OIL PRICES
1973-1982
Manitoba
Petroleum
Branch
Old Oil (D_3S_4)
NORP Oil (D_2S_3)
SOOP Oil (D_3S_4)
NORP Oil
SOOP Oil
Old Oil
PRICE/m^3
PRICE/(BARREL)
300
250
200
150
100
50
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
1973
74
75
76
77
78
79
80
81
82
YEAR


Value of Production in Manitoba
1973-82
$(MILLIONS)
100
90
80
70
60
50
40
30
20
10
1973
74
75
76
77
78
79
80
81
82
YEAR

Freehold Mineral Owner's Royalty Revenue

Freehold royalties, which are paid by oil producers to freehold mineral rights owners, average 12½-15% of the wellhead price. With over 80% of oil production coming from freehold owned mineral rights, it is estimated that approximately $11 million was paid out in gross freehold royalties in 1982. This does not include signing bonuses and delay lease rental payments for new and non-producing leases.

Municipal Tax Revenue

Oil producers in Manitoba pay a municipal tax on various types of oil properties. These include: oil wells, batteries, salt water disposal wells, salt water disposal plants, water injection wells, and suspended wells.

The municipal assessment on these types of oil properties for the period from September 1982 to September 1983 will be approximately $4.75 million dollars.

In addition to a municipal tax on oil properties, the province also receives approximately $350,000 in taxes from pipeline companies. In total, municipalities in southwestern Manitoba will collect approximately $5.1 million dollars in municipal taxes from the oil industry.

Surface Owners Revenue

Companies wishing to explore or develop oil properties must negotiate a surface lease with the individual land owner. In return for this right-of-entry, the landowner receives a negotiated cash settlement which includes a first year bonus payment and a subsequent annual rental fee for the duration of the lease.

If a lease cannot be negotiated between the company and the landowner, the company may apply to the Mining Board to arbitrate the matter. The Mining Board has the authority to grant access onto the land as well as to hold hearings in order to determine what compensation should be paid to the landowner.

In situations where the landowner is renting his land to another party, the oil company seeking right-of-entry must obtain the consent of both the landowner and the occupant.

After a lease has been signed, the landowner and occupant then determine what each will receive as his share of the compensation paid by the oil company.

In 1982, an estimated $1.3 million was paid by oil companies to landowners in the form of first year bonuses ($600,000) and annual rental fees ($700,000).

Bill 5, to provide for a separate Surface Rights Act was introduced into the Manitoba Legislature in December 1982 and is expected to be passed in 1983. This Act will cover all surface rights matters relating to oil and gas exploration and development in Manitoba, including a new Surface Rights Board.

Oil Price Supplement Programs

New Oil Reference Price (NORP) Program:

As of January 1, 1982 those operations producing oil qualifying as "conventional new oil" were eligible to receive the NORP supplement. This program was introduced and implemented as a result of oil pricing and taxation negotiations between the Governments of Manitoba and Canada in December 1981.

Operators producing "conventional new oil" sell their production at old oil prices to purchasers and later receive a NORP supplement funded by the Government of Canada. The NORP supplement together with the price for old oil makes the value received for NORP production equal to the world oil price.

The Petroleum Branch of the Manitoba Department of Energy and Mines administers the NORP program in Manitoba.

As of December 31, 1982, 163 wells were eligible for NORP supplements. In 1982 NORP supplements amounted to $11.6 million or 12% of the total value of provincial oil production.

Special Old Oil Price (SOOP) Program:

Effective July 1, 1982 production from qualifying wells was eligible for a Special Old Oil Price (SOOP) supplement. The SOOP supplement is equal to the difference between the Old Oil price and 75% of the NORP price. As the Old Oil price rises to 75% of the NORP price, the SOOP supplement will reduce to zero.

In 1982, 30 wells were eligible for SOOP supplements which amounted to $150,161. It is expected that SOOP supplements will steadily decrease in 1983.

SUMMARY OF MANITOBA NEW OIL REFERENCE PRICE (NORP) PROGRAM

1982

Month	# of Companies Claiming	# of Certified Wells	NORP Production Claimed (m^3)	NORP Supplement Claimed ($)	Total Value of Production ($)
January	6	29	3 281	396,537	7,277,538
February	7	33	3 137	385,020	6,592,062
March	8	47	5 496	674,111	7,598,055
April	8	51	5 630	716,664	7,188,102
May	8	54	5 248	664,172	6,115,627
June	9	65	7 713	971,646	8,355,169
July	8	76	10 281	1,018,481	9,228,231
August	10	89	10 713	1,047,818	8,471,471
September	11	112	12 068	1,171,367	9,583,392
October	11	119	9 918	1,078,570	8,992,250
November	11	139	14 259	1,559,048	10,073,991
December	12	163	17 562	1,924,404	11,063,797
Total	N/A	N/A	105 306	11,604,838	100,539,685

SUMMARY OF MANITOBA SPECIAL OLD OIL PRICE

(SOOP) PROGRAM 1982

Month	# of Companies Claiming	# of Certified Wells	Total Monthly Production Claimed (m^3)	Total SOOP Supplement Claimed ($)
July	5	23	652	17,108
August	10	29	1 097	28,396
September	8	26	878	22,727
October	11	30	1 007	31,220
November	9	26	796	25,433
December	8	24	788	25,277
Total	N/A	N/A	5 218	150,161

Manitoba Drilling Incentive Program

The "Manitoba Drilling Incentive Program" is designed to provide oil producers in Manitoba with a reduced Crown oil royalty and freehold oil tax rate. Wells drilled between January 1, 1979 and January 1, 1987 may qualify for a special reduced royalty incentive rate which is 35% of the corresponding base royalty rate charged on "old oil".

The corresponding incentive freehold oil tax rate is described in Schedule D of The Oil and Natural Gas Tax Act.

The incentive period earned for wells producing from provincial Crown mineral rights is called the "royalty incentive period" (RIP) whereas wells producing from freehold mineral rights earn a "production incentive period" (PIP).

These reduced royalty and tax rates apply to production from a new oil well during its incentive period.

Schedule E of the Crown royalty regulations (Manitoba Revised Regulation M160-RIP) indicates how the incentive period (RIP or PIP) for a new oil well is calculated.

Approximately 24% of the estimated 900 producing oil wells in the Province were operating under an incentive period (12% under RIP and 88% under PIP) in 1982. Sixty-five percent of the 214 wells which have produced oil under the incentive program are located in the Waskada area.

The Manitoba Drilling Incentive program has been instrumental in attracting oil companies to Manitoba over the past four years. With the recent extension of the program to January 1, 1987, Manitoba's royalty and tax rate structure will remain competitive with other oil producing provinces. (Bill 16 to amend The Oil and Natural Gas Tax Act presently before the Legislature).

Oil Reserves

From 1973 up to 1980 remaining established oil reserves in Manitoba continued to decline at a rate of approximately 5% per year due to production and lack of new discoveries.

This trend began reversing in 1980 as new discoveries were made in the Kirkella area. The new discoveries in the Waskada area in 1981 arrested the decline and as the Waskada reserves continued to be proved up in 1982 the province experienced its first increase in remaining established reserves in more than 15 years.

Preliminary estimates as of December 31, 1982 indicate that the province's total remaining established reserves were approximately 8.2 million m^3 (52 million bbls.), up about 6% from 1981 figures.

Total remaining established reserves could increase significantly during 1983 and in following years if successful drilling results continue in the Waskada and other areas, and with implementation of waterflood schemes in newly developed fields.

1983 Forecast

Manitoba is expected to see the continuation of a high level of development activity during 1983. Several reasons support this statement: firstly, many oil leases are due to expire this year and in order to maintain a lease the oil company must drill and establish production before the expiry date; secondly, the high success rate experienced in the Waskada area should continue to provide an incentive for relatively lower risk and less costly drilling; thirdly, the continuation of the Manitoba Drilling Incentive Program to the end of 1986 will continue to provide oil producers with netbacks competitive with other oil producing provinces; and fourthly, discoveries

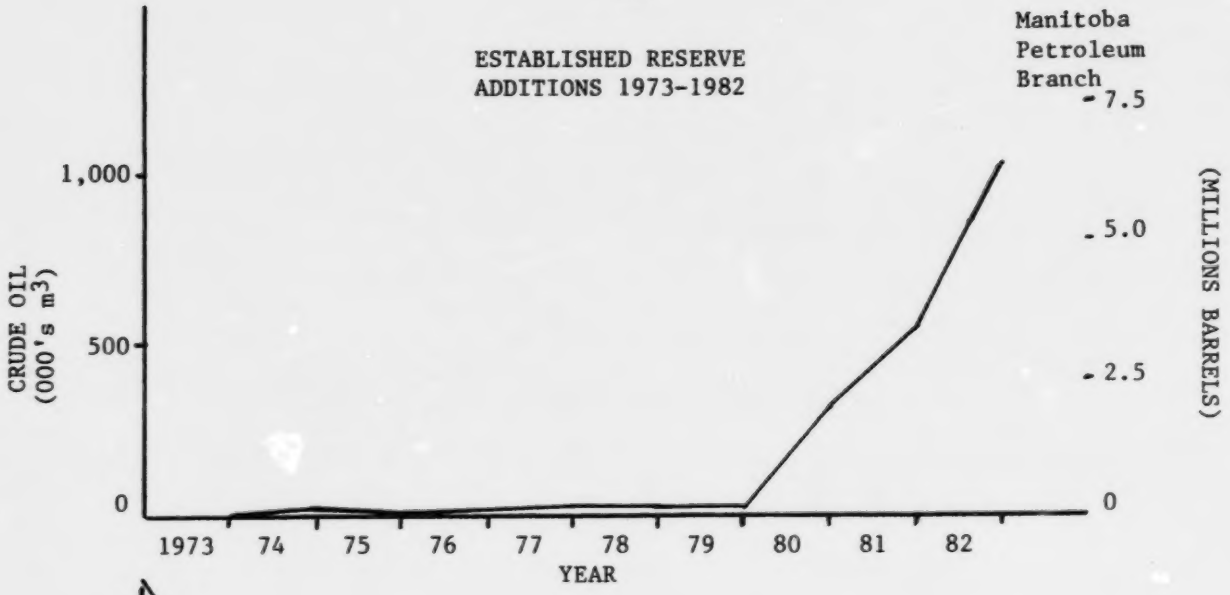
CRUDE OIL RESERVES

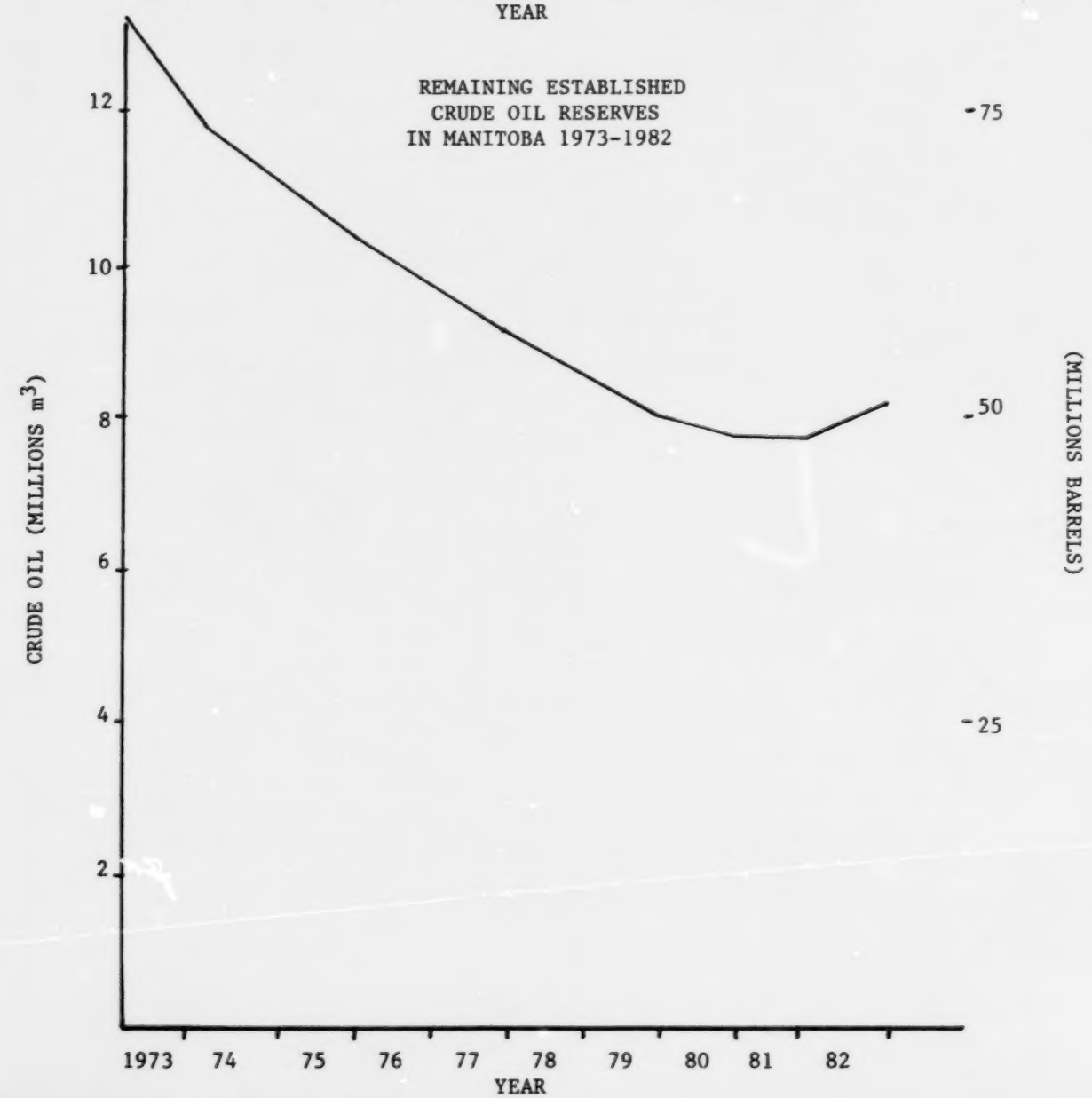
IN MANITOBA 1973-1982

Year	Production (m^3)	Established Reserve Additions (m^3)	Remaining Established Reserves (m^3)	Years to Depletion*
1973	807 882	Nil	11 798 000	14.60
1974	754 667	15 000	11 059 000	14.65
1975	701 459	4 000	10 362 000	14.77
1976	633 322	7 000	9 735 000	15.37
1977	630 466	15 000	9 120 000	14.46
1978	598 354	22 000	8 543 000	14.28
1979	583 377	24 000	7 984 000	13.64
1980	563 482	314 000	7 735 000	13.73
1981	542 695	544 000	7 736 000	14.25
1982	582 322	1 035 000	8 189 000**	14.06

* Remaining Established Reserves ÷ Annual Production

** Preliminary Estimate


ESTABLISHED RESERVE
ADDITIONS 1973-1982
Manitoba
Petroleum
Branch
CRUDE OIL
(000's m3)
1,000
500
0
7.5
5.0
2.5
0
(MILLIONS BARRELS)
1973
74
75
76
77
78
79
80
81
82
YEAR


REMAINING ESTABLISHED
CRUDE OIL RESERVES
IN MANITOBA 1973-1982
CRUDE OIL (MILLIONS m3)
12
10
8
6
4
2
75
50
25
(MILLIONS BARRELS)
1973
74
75
76
77
78
79
80
81
82
YEAR

in Manitoba are likely to be oil rather than unmarketable natural gas with new oil receiving equivalent to world oil price.

Because of these factors, it is estimated that 150-200 wells will be drilled during 1983, and of this number, it is possible that 125-150 new oil wells will be placed on production.

With more wells on production, an increase in total oil production is forecast. Approximately 715 000 m^3 of oil (4.5 million barrels) could be produced in Manitoba this year, resulting in a 23% increase over 1982 production.

Although "old oil" production will continue to decline through 1983, the amount of NORP oil production is expected to steadily increase from 30% of total production in December 1982 to about 45% of total production in December 1983.

As production levels increase so will the value of oil sales. In 1983, approximately $150 million could be generated from crude oil sales representing a 50% increase over 1982.

As the value of oil sales increase so will the revenues collected by the province in Crown oil royalties and freehold oil taxes. Crown oil royalties could approach $4.25 million in 1983 while freehold oil taxes could generate approximately $14 million.

With further development of the Waskada area, the province's established oil reserves are expected to increase for a second consecutive year.

Other areas that may see increased drilling activity include the Coulter and Pierson areas. These areas contain the "red-beds" of the Lower Amaranth Formation. More drilling will determine whether or not these areas together with further development of the Waskada area will continue to fuel Manitoba's current oil boom.